TECHNOLOGY DEPT.

A National Newspaper for Every Branch of the Industry

Automotive Daily News

CARS · SHOP EQUIPMENT · TRUCKS · MACHINERY · PARTS · ACCESSORIES · TOOLS

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First Copy

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New Commercial Car Sales In 27 States and D. of C. Run 36% Under Feb., 1932

If Present Ratio to February Last Year Is Maintained In All States, the Total for the Month Should Be 9,295

Detroit, March 23.—R. L. Polk & Company today announced February commercial car sales returns from twenty-seven states and the District of Columbia. The total for this territory in February this year was 5,742 vehicles as compared with 8,905 units in the same month of last year.

The decrease for this territory works out at just under 36 per cent., which is about the rate of decline that has been shown so far this year.

In spite of the general decrease in sales for February, 1933, the White Company managed to show a gain in these twenty-seven states and the District. This February, the total was sixty-five Whites sold against fifty-eight last year. Rockne sold fifteen trucks against none in the same month of 1932.

If the present ratio of decline, 36 per cent. from last year, holds during all of February, the total sale of commercial units for that month this year will be about 9,295.

DE SOTO DELIVERIES REBOUND 75% WHEN BANK HOLIDAY ENDS

Detroit, March 23.—With banking restrictions removed at the start of last week, retail deliveries by De Soto dealers for the week ended March 18 bounded back 75 per cent. above the previous week, according to a statement made today by L. G. Peed, general sales manager of De Soto Motor Corporation.

"Every one expected a quick comeback to automobile sales," said Mr. Peed, "but we hardly anticipated such an encouraging jump as 75 per cent.

"Our dealers delivered 934 cars last week against a total of but 533 for the previous week.

"Used car deliveries made a similar jump to 1,073 cars, an increase of 65 per cent.

"It is interesting to note that used car sales were slightly in excess of new car deliveries. Ordinarily this does not begin to occur until much later in the season. It is a healthy sign, indicating that dealers are in a better position to trade during the spring season ahead."

NATIONAL BATTERY TAKES OVER VESTA

Chicago, March 23.—Announcement was made here today that the National Battery Company of St. Paul, Minn., has taken over the Vesta Consolidated Corporation of Chicago. The arrangement was made known by W. H. Seymour, vice-president and sales manager of the National Battery Company, who is at present in Chicago.

Mr. Seymour stated that the new arrangement will prove a distinct advantage to Vesta in that it will permit production at factories in six cities instead of concentration at Chicago. This plan, said Mr. Seymour, will result in better national distribution and considerable saving in freight rates. He added that the Vesta trade name will be continued and that the sales organization will be retained and expanded.

EXPORTS OF INDIANA TRUCKS THUS FAR EXCEED 1932 TOTAL

South Bend, Ind., March 23.—More Indiana trucks have been exported to date this year than were shipped to overseas dealers during the entire year of 1932, it was announced here today by Arvid L. Frank, vice-president and general manager of the Studebaker-Pierce Arrow Export Corporation.

"Indiana has made a remarkable showing this year," he said. "We are shipping Indiana Trucks to markets that have been practically at a standstill for the last two years, and if our business from these countries for the first two and a half months is any indication, we will obtain an excellent volume from them in 1933.

"Another gratifying feature of our Indiana business is that it is coming from all parts of the world," he pointed out. "Included among the countries in which Indiana dealers are securing increased business are Brazil, Japan, Holland, Puerto Rico, Manchuria, Mexico, Cuba and the Philippine Islands."

Following the Studebaker-White merger, production of Indiana trucks was transferred to the White factory in Cleveland.

TRUCK LECTURE TEXT AND FILMS AVAILABLE TO TRUCK GROUPS

New York, March 23.—The Michigan Motor Transport Association has issued a seventeen page booklet on "Our Transportation Problems" which may be used in connection with a still picture film of the Jam-Handy type for lecturing of the present problems facing transportation units.

In preparing this booklet the association has exercised scrupious care to insure a fair and accurate presentation of our current transportation ills. It has recognized the sad plight in which many railroads find themselves at the present time but at the same time presents the burdens and problems of other methods of transportation.

The booklet is fully illustrated and synchronized so that the text and still pictures can be readily connected by the person presenting the lecture. The association, cognizant of the fact that speakers on both sides of this controversial subject have in many cases, through lack of accurate information, made statements which were often unfair to the other side and later embarrassing to the side which the speaker desired to uphold, has prepared this information.

The booklet and film are available

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DE SOTO DEALER ORGANIZATION IS AT RECORD PEAK

Detroit, March 23.—More new dealers have joined the De Soto organization since the first of this year than at any time since the corporation was first organized, according to a statement issued today by L. G. Peed, general sales manager of De Soto.

L. G. Peed

"Since the New York automobile show," said Mr. Peed, "the De Soto dealer body has been increased by 183 new accounts, giving us today the largest, active dealer organization in our entire history.

"Our biggest increases have naturally come from districts surrounding centers of population. Our New York district, for example, which merchandised better than 13 per cent. of our entire output in 1932,

(Continued on Page 3)

GOODYEAR DROPS CHEAP TIRE TRADE

Akron, O., March 23.—The Goodyear Tire and Rubber Company, one of the "big four" in the tire industry, announced yesterday that it was discontinuing its third and fourth line tires and would henceforth concentrate on its first and second line output. Its step is in line with the policy announced by the B. F. Goodrich Company and the United States Rubber Company on Tuesday.

Goodyear also announced that it had placed in effect a new schedule of prices. The price reductions correspond with those made by the Goodrich company. The latter reduced its first and second line tires 20 per cent. from the list price prevailing last September, leaving them about 10 per cent. above the prices of the first and second line tires of the mail order companies. In recent years, there have been several price wars between the manufacturers and the mail order firms.

The statement issued by the Goodyear company follows:

"Goodyear will produce only two lines of tires—All Weather and Pathfinder. The first is designed for the quality market, while the

(Continued on Page 6)

YOUNGSTOWN STEEL RECALL WORKERS

Youngstown, March 23.—Youngstown Pressed Steel Company this week resumed operations, recalling 500 employees to its plant at Warren, O., after one week's idleness.

Republic Steel Corporation is operating nineteen of twenty-four tin mills at its Warren plant, compared with thirteen a week ago.

Packard Electric Company is operating at 70 per cent., following a brief drop during the banking holiday.

Brewers Look to Truck Makers For Transportation Suggestions

Need for Equipment Is Urgent, but Brewers Feel Truck Makers Can Best Solve Design Problem; Light Cars Also Needed

New York, March 23.—By affixing his signature to the bill removing Federal restrictions on the manufacture, sale and transportation of 3.2 per cent. beer yesterday, President Roosevelt opened the door to a truck and light passenger car market which will run into millions of dollars.

The beauty of this market from the automotive manufacturers' point of viey is that it is practically virgin soil. During the past thirteen years the normal process of obsolences has left the brewer just thirteen years behind in the matter of transportation. This leaves the brewer with practically no trucks at all and only a mere skeleton of the transportation system which will be required to meet the needs of an industry which is about to be reborn.

At the present time there seems to be some question as to just what the brewers need in the designs of bodies and chassis will be under the various state laws. There is little question, however, that there will be a heavy demand for trucks capable of handling economically beer in barrels and kegs, and in addition each brewer will require lighter trucks for delivery of bottle beer to stores and homes. In many states it is quite likely that the home delivey will be a large part of the brewers' trade, and this will entail the purchase of light trucks suitable for route service and house to house delivery. The secretary of the United States Brewers' Association told Automotive Daily News that some brewers are considering the use of tank bodies for bulk delivery of beer if such bodies can be designed so that delivery may be made without injury to the beer.

The truck manufacturing field will not alone benefit from the reopening of the breweries. The light passenger car field also will have a good market for salesmen's fleets

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COOK COUNTY SALES IN FEBRUARY DROP BELOW FEBRUARY, '32

Chicago, March 23.—February registrations of automobiles in Cook county were 2,217, as against 2,914 a year ago, and 3,216 in January this year. For the first two months this year Cook county registrations totaled 5,439, as against 5,543 in the like period of 1932.

Registrations by companies in February, 1933, with comparisons, follow:

	Feb. 1933	Jan. 1933	Feb. 1932
General Motors	1,028	1,317	1,435
Ford-Lincoln	331	612	97
Chrysler division	511	826	427
Studebaker division	103	139	188
Hudson-Essex	44	51	135
Willys-Overland-Knight	51	48	131
Auburn-Cord	9	41	86
Nash	45	47	180
Packard	29	39	38
Hupmobile	15	30	56
Graham	34	37	76
Franklin	3	9	11
Marmon	..	2	7
Reo	8	13	13
Continental Beacon	6	*..	*...
Miscellaneous	..	5	34
Total	2,217	3,216	2,914

*Introduced late in January, 1933.

FEBRUARY CANADIAN CAR PRODUCTION NEAR EVEN WITH JANUARY

Montreal, March 23.—Production of 3,298 automobiles in Canada during February, a short month, showed little change from the 3,358 cars of the previous month, but was 40 per cent below the output for February, 1932, when 5,477 cars were made.

This month's figures when compared with those for January show that passenger cars registered a slight improvement to 3,025 from 2,921, while trucks declined to 273 and 437, says a report issued today by Dominion Bureau of Statistics.

Of the February output 3,130 cars were made for sale in Canada, leaving a balance of 168 for export. The apparent consumption of cars in Canada during the month, as determined by adding the 3,130 cars made for sale in Canada to the ninety-nine imported, amounted to 3,229 cars. Exports for the month were reported at 277 cars.

FEDERAL TRUCK PLANT RESUMES OPERATION

Detroit, March 23.—Federal Motor Truck Company resumed operations March 21, recalling approximately 400 workers following a partial shutdown since March 6. The plant will operate five days a week.

SCHREIBER APPOINTED MANAGER OF PONTIAC RETAIL STORE, DETROIT

Detroit, March 23.—Appointment of A. E. Schreiber as manager of the Pontiac retail store, largest automobile showroom in the world, is announced by Charles P. Brady, supervisor of Mid-West retail stores for Buick, Olds and Pontiac. The Pontiac retail store extends a full city block on Second Boulevard between Milwaukee and Baltimore avenues.

Schreiber has been sales manager at the Pontiac retail store for the last two years. In his new position he will continue to supervise the sales operation which exceed those of any other Pontiac retail group. His sales organization contributed largely toward the fact that Pontiac, with 421 retail deliveries in Wayne County during January and February against 221 for the corresponding period of 1932, has held third place in sales volume here since the ?rst of the year.

Prior to joining Pontiac in 1931, Schreiber served five years as retail sales manager for Chevrolet in the local field.

SPECIALIZED ADVERTISING FOUND EFFECTIVE

By JAMES R. LOWELL

Carl A. Anderson, head of the electrical jobbing concern in Omaha, Neb., bearing his name, is a firm believer in advertising, but he insists on confining such expenditures to a highly specialized form of advertising. During the past few years the company has discarded outdoor signs and general newspaper advertising as being too broad in their scope to be effective, and has increased the amount of time and money spent on direct-mailing literature and personal contacts.

"The automotive electric specialist draws most of his trade from the more particular or well-to-do class, anyway," Mr. Anderson says, "so why waste ammunition by using shotgun tactics in advertising when the message can be directed so much closer to the bull's-eye by using a more specialized medium?

"I also make it a practice to spend several hours almost every day calling on likely prospects in an attempt to sign them up for service on contract. This applies especially to fleet operators and we are giving more and more of our time to this type of business, as it helps to fill up the periods of low activity in the shop as well as level off the rush hours. Incidentally, this type of business is very much appreciated by our mechanics, who are employed by the hour."

Mr. Anderson spends considerable time on collections, and since he started making personal calls, there has been a noticeable increase in collections. Losses from bad accounts also have fallen off, due in a large part to the new credit policy of the company which puts all activities on a cash basis, both to the customer who comes into the shop and the dealers who are now receiving automotive electric supplies C. O. D. A preferred customer list is maintained, of course, but when one of the preferred risks falls down on a payment, he immediately is taken off the credit list.

Efficient interior arrangement and grouping of departments have helped materially in keeping down the overhead costs of the company. The building itself is a model garage and was designed by Mr. Anderson. It is a one-story affair with 66 by 133 feet of floor space on the main floor in addition to storage room in the basement. Slanting skylights in the roof give a maximum of natural light, providing a cheerful atmosphere in the place and doing away with the necessity for artificial lighting except in the late afternoon or early morning of the darkest winter days. A sprinkler system and steel and brick construction make the insurance rates the lowest possible.

One side of the interior is given over to special service operations with each department set off from the other by heavy wire screens two and a half feet high. Back of the offices is the speedometer and carouretor repair and testing department equipped with work benches, testing apparatus and steel cabinets where parts are kept in labeled drawers. A special bench has been provided for making speedometer cables.

Magnetor and generators are serviced in the next department which contains the first magneto charger ever brought to Omaha. It was imported from Germany by Mr. Anderson before the present company was incorporated. Another machine for charging magnetos after they have been assembled has been added. A soldering outfit, buffing

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APRIL TRUCK ISSUE

Brewers, Contractors and Owners of 1,500,000 Business Vehicles Will Get the Issue of April 15

Revised schedule of Truck Issues

APRIL 15
MAY 13
JUNE 17
JULY 15
AUG. 5 and
AUG. 26
SEPT. 16
OCT. 14
NOV. 11
DEC. 16

Fleet owners having 10 or more vehicles, 27,000 names, will receive the truck issues. Personally addressed copies to the Machol list. Only Automotive Daily News can provide such wide extra distribution at no additional cost to the advertiser.

If you want to reach not only those owners but exclusive truck dealers, important bus operators, 8,000 passenger car dealers and important factory officials, use that issue with a page at $350; half page at $175 or a quarter page at $87.50.

Forms close 2 days preceding publication.

Automotive Daily News

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WESTERN OFFICE: Willard R. Cotton, *Manager* 333 No. Michigan Ave., Chicago, Ill.

FINANCIAL NEWS

STUDEBAKER

New York, March 23.—The sheriff's office has attached all the property in New York city owned by the Studebaker Corporation, Inc., through the Studebaker Sales, it was made known yesterday. Warrants for the attachments were obtained by Albert J. Carey as the assignee for banks holding notes of the company, which was placed in receivership in Indiana last week. An application for a New Jersey receivership is pending.

Suit was filed by Mr. Carey in the Supreme Court at Buffalo on Monday against the corporation for $1,448,000. A writ of attachment was then issued for all Studebaker property in Erie county. New York banks which have assigned notes to Mr. Carey in the case are the Chase National Bank, the Commercial National Bank, the Central Hanover Bank and Trust Company, the Marine Midland Trust Company and the Chemical Bank and Trust Company. The company has made some payment on the notes, it is understood.

New York city property attached yesterday by Deputy Sheriffs Joseph A. Lanman and James R. Cavanagh consists of automobiles, the company's showrooms at 56th Street and Broadway, a factory at 625 West 135th St., and bank accounts in the Guaranty Trust Company and the Commercial Investment Trust Company, an automobile finance organization.

The Studebaker Corporation yesterday reported net loss for 1932 of $8,279,806, compared with net profit of $859,805 in 1931. Sales totaled $46,233,830, against $64,406,958 in the previous year.

HERCULES MOTORS

New York, March 23.—Hercules Motors, reports for 1932, as certified by independent auditors, net loss of $129,814 after depreciation and taxes. This compares with net profit in 1931 of $324,861, equal to $1.04 a share on 310,100 no par shares of capital stock.

FOSTORIA PRESSED STEEL

Fostoria, O., March 23.—Fostoria Pressed Steel declared a quarterly dividend of 12½ cents on the no-par common stock, against 25 cents paid December 20, 1932. Payment is due March 30 to stock of record March 22.

MACK TRUCKS

New York, March 23.—At the annual stockholders' meeting of Mack Trucks, Inc., yesterday, A. J. Brosseau, president, said that he hoped the legislation permitting 3.2 per cent beer would bring an increased demand for the company's products, although the extent of improvement cannot be estimated until beer actually is in distribution. Stockholders voted approval of the directors' recommendation to cancel 103,217 shares of capital stock held in the treasury.

FAILURES

New York, March 23.—For the first half of the current month the insolvency index is down to 116.5, compared with 159.0 for February and 167.4 for March of last year. Not since March, 1929, has the insolvency index for that month been at so low a point.

IRON AND STEEL

New York, March 23.—The iron and steel markets of the country have not yet shaken off the shock of the bank holiday, and steel ingot production has dropped a point to 14 per cent. of capacity, although the industry looks for gains beginning this week or next, Iron Age says in its current summary.

ELECTRIC OUTPUT

New York, March 23.—Electric output for the week ended March 18 was 1,375,207 kilowatt hours, according to the Edison Electric Institute. This was a decrease of 10.6 per cent. for the entire United States compared with the corresponding week in 1932. Production of 1,390,607,000 kilowatt hours in the preceding week was 9.06 per cent. less than the corresponding 1932 week.

SPICER MANUFACTURING

New York, March 23.—Spicer Manufacturing Corporation has de-

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SPARKS from DETROIT

Bodies for Beer
Sankey Shows How
Chrysler of Canada
Tires and Treads

Chris Sinsabaugh
Detroit Editor

WHAT type of body will be needed for the huge fleets of motor trucks that will be required for the transportation of beer now that the Volstead act is a thing of the past? That's the question being asked by body manufacturers who intend going after this business. Many of the states have not worked out the necessary laws and regulations which will govern the distribution of beer which accounts for the uncertainty that prevails among our best body builders in Detroit.

* * *

FRANK H. DEWEY, sales manager of the Wood Hydraulic Hoist and Body Company (that's Gar Wood's concern, you know), is set for the big market with a complete line of all-steel bottlers' bodies which he thinks will be popular with brewers in the event that the brewers' needs are for carton and case deliveries, but he wants to know which way the cat is going to jump—cartons or kegs.

Dewey declares that his investigations show the preponderance of interest to be in "closed" bottlers' bodies, and he tells me of a survey in the Milwaukee district which produced the report that "the day of the barrel and keg is past and in the future practically all beer will be handled in bottles and pasteboard cartons in exactly the same manner as ginger ale, White Rock, etc."

* * *

"IT ALSO SEEMS to be the opinion of some that ordinary platform types of bodies, preferably all steel construction, will be used," says Dewey. "These bodies could be equipped with stakes and panels, with an opening in each side through which the cases could be loaded and unloaded. This type also could be used for handling kegs. There also is the possibility of beer being transported in bulk in tank bodies in the same manner as milk is now transported.

"We can handle this latter proposition, too, but we are hoping there will be a standardized body and we would appreciate some definite information from the brewers as to what they are going to want, if Automotive Daily News can get it for us."

* * *

THIS BEING BODY DAY in the column, it is apropos to slip in something from R. H. Sankey, sales manager of the body division of the Baker-Rauland Company of Cleveland, who calls to the attention of the conductor that his concern is doing nicely in the house-to-house delivery unit field with its Standrive bodies.

"We have been building the standard Ford house-to-house delivery bodies for the Ford Motor Company for the past two years and have enjoyed a good amount of business from the White and Indiana companies," reports Sankey. "In addition to our direct automobile manufacturers' business we also have been successful in selling a great number of fleets to the prominent bakery and dairy companies."

* * *

MACLEAN'S MAGAZINE, a Dominion publication, is bragging that Walter P. Chrysler is a grandson of Canada, a Canadian once removed . The story tells us that William Chrysler settled in Kent county in 1796, and in 1820 founded Chatham, Ont. He had two sons, Henry and James, and Henry's son, John, who moved to Kansas, was the father of another Henry, who was the father of Walter P.

* * *

GENERAL GAVE US prism side walls as something new in tire styles and now comes along Goodrich with a construction change that is destined, Akron thinks, to be a big feature of the year. Accepting the findings of tire technicians that the separation of rubber from fabric is the major cause of premature tire failure, Goodrich's latest is declared to be protection against blowouts. The secret of it all is a ply made of a special compound which resists heat and friction.

Life Saver Golden Ply, they call it, and it is said here in Detroit that the idea was tested out some time ago on a Detroit proving ground track on a car that ran continuously twenty-four hours a day for thirty days at speeds approximating seventy miles an hour in order to convince Goodrich engineers that the idea was fool-proof.

Retail Salesmen — This Is Your Page

This department is devoted to the interests of the retail sales division of the industry. Salesmen, this is your department. Automotive Daily News wants you to get something from this department that will help you in your work on the firing line. It wants you to pass on your own experiences, success, failures to help your brother salesmen. Send in your story in the form of a letter, or even a postal card, and let us get it ready for publication. Your achievement or your mistake may help another salesman to make sales or avoid errors that cost you commissions.

Dealers read this page. Give us the benefit of your reactions on these problems that affect the work of your salesmen, the men on the firing line, the men who bring home the bacon or don't.

LET'S HAVE ACTION! FAULKNER TO PIERCE-ARROW DEALERS

By ROY FAULKNER

Vice-President in Charge of Sales of Pierce-Arrow

During the last two months' when one bank after another closed its doors and business didn't seem to be as healthy as I thought it should be, I had my moments when I felt perhaps we were headed for the dog house.

Came the moratorium and the inauguration, and about that time I was so low I began to wonder if anything would ever be done about conditions in this country. Then I heard our new President make his first speech. A bunch of us gathered around a radio at the Buffalo Athletic Club and listened.

We got what we wanted when in a vibrant voice, quivering with emotion and sincerity, Franklin D. Roosevelt promised action.

And did we get action!

An impossible banking situation was met with vigor and decision in a few hours. A Congress that had been pulling and hauling for months developed into a smooth running machine. With all banks closed, in-

ROY FAULKNER

stead of the despair one might have expected—a new spirit of confidence was born.

A new leadership had come into America. A new faith and hope was born in the hearts of men.

Last Sunday night I again sat and listened when the President talked to the world at 10 o'clock, and when his voice had died away I had a wild temptation to send a wire to President Roosevelt apologizing for not voting for him, for I felt, as did every one who sat there with me, that God was in his heaven and all was soon to be right with the world. I was even ashamed of the fact that I had $20 in my trousers' pocket when I might have left $15 of it in the bank.

We are on our way, but no one man can do this job alone—in every city, in every hamlet, of this broad land, men must strive to be worthy of the courage that has been demonstrated in the highest office in our country, and I know of no better slogan to hang on the walls of our factory, salesrooms and shops than this—"Let's have action!"

Pierce-Arrow stands at the beginning of what I believe will be the greatest era in its history. We are armed with merchandise beyond anything we have ever had to sell. Our acceptance is greater than it has ever been before. In a shrunken market we have steadily increased our competitive position.

With the new confidence and hope that has come to all, undoubtedly business will be better, but it will only be better for the man who goes out after it.

Even during the moratorium, Pierce-Arrows were sold in different cities of the United States by salesmen who kept on working.

Lawrence Clarke at Albany, for example, sold and delivered a twelve and an eight this week and has excellent prospects of selling a full leather-lined Model 1247 enclosed drive within the next few days. Master Salesmen's Club report cards from Ashley Papin of St. Louis show that the bank holiday could not stop him; he sold a Model 1242 on March 14 and also an eight, delivering the latter car the following day. Charles Culver of Springfield sold a Salon Club sedan eight last Saturday for delivery next week. Joseph Stein of Asbury Park sold four cars during the bank holiday, one of them a Model 1242, delivering three of them. Roscoe Miller of Wilkes-Barre sold a twelve, Harry Reeves of Baltimore sold and delivered a Model 1247 enclosed drive limousine, John Yarbrough of Atlanta sold an eight, Bert Russell of Kansas City reported the sale of an eight paid for in cash, Tom Ryan reported a number of sales in New York this week—a big twelve LeBaron, a twelve enclosed drive limousine, a twelve sedan being among them—with excellent prospects for additional deals before the end of the week.

We have talked with points all over the country and everywhere we get reports of a completely changed attitude, of the best showroom activity in months and of signs of a big awakening in Pierce-Arrow sales.

The new President has thrown down the gauntlet to the men and women of America. We asked for bravery in the high places and he has given us a type of bravery and decision that I believe will pass him on to our posterity as one of this country's greatest presidents.

Again I say that we on the firing line of business must not prove unworthy. We must follow his example.

Let's have action!

Dealer Activities

CLEVELAND, OHIO

The Muran-Conroy Motor Sales, De Soto-Plymouth dealership, has removed its salesroom and service station from 5901 Franklin Ave. to larger and more commodious quarters at 6375 Lorain Ave., where approximately 17,000 square feet of floor space has been provided for sales, service and executive activities. David Muran and Frank J. Conroy are principals of the concern.

* * *

Canning & Harmon, Inc., Dodge-Plymouth dealership, with salesroom and service station at 14335 Euclid Ave., East Cleveland, has acquired the stock of Dodge parts and equipment of the Mattison Motor Company, until recently Dodge distributor in the East Cleveland district.

DE SOTO DEALER ORGANIZATION IS AT RECORD PEAK

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has attracted twenty-nine new accounts since the first of the year.

"Our Chicago territory which made a splendid record for sales increase during 1932 over the preceding year, has added thirty new dealers so far this year.

"The old adage "Nothing succeeds like success," is well exemplified by this further expansion of De Soto's dealer organization.

"De Soto dealers made the most spectacular sales and profit showing during 1932 against 1931 of any dealer organization in the country. So it was only natural that when our 1933 line was shown to the trade, competitive dealer interest in the De Soto-Plymouth franchise should have reached this new high-water mark."

DODGE ANNOUNCES PERSONNEL CHANGES

Detroit, March 23.—K. T. Keller, vice-president and general manager of the Chrysler Corporation, announces the following changes in personnel of the Chrysler Motors Parts Corporation.

W. H. Kilpatrick is appointed vice-president and general manager. J. L. Kenyon and G. N. Ralls are appointed merchandising directors, reporting to Mr. Kilpatrick.

Thoroughness Explains Ormsby's Success

Practise of thoroughness in all departments in no small manner accounts for the success of the Ormsby Chevrolet Company of San Antonio, Tex. This thoroughness is especially noticeable in the sales department, where "schools" are held and salesmen given adequate and complete instructions on selling, seeking prospects, closing the sale, and assisting the customer in working out his financial arrangements.

When new models are to be brought out, these schools are held every night and every salesman is required to fully answer all questions concerning the new cars. No preference is shown, and the fact that one or two can answer satisfactorily is not sufficient. Every man must know about the car before he starts out to sell.

The regular sales meetings, followed by semi-monthly meetings of various departments and monthly meetings of the entire personnel have done much to keep all employees alert and on the lookout for new business. Pride is taken in the organization and its achievements. A bulletin board is prominently posted to show the relative position of this firm in proportion of other Chevrolet dealers in this district. Regular service meetings are held in which frank discussions of service problems, suggestions for improvements, and other ideas are taken up.

Checking sales manuals and asking questions which would not ordinarily come up during the day, are but two plans used for keeping the salesman constantly alert and on their toes. Experience has shown that the salesman who has a complete manual and is fully informed, is the one who will make the most sales.

10,600-BARREL GAIN IN OIL PRODUCTION

New York, March 23.—Daily average gross crude oil production in the United States increased 10,600 barrels in the week ended March 18, totaling 2,126,450 barrels, the American Petroleum Institute's weekly summary indicates. Daily average production east of California increased 69,100 barrels to 1,712,650 barrels.

Montreal A. T. A. Elects New Board of Directors

P. O. Messier, President

Adelstan Levesque, Managing Dir.

The annual shareholders members' meeting of the Montreal Automobile Trade Association, Ltd., was held March 20 at the Mount Royal Hotel.

The retiring board of directors presented a report of the activities of the association for the last fiscal year, as well as a financial statement, which showed a favorable balance and satisfactory progress in spite of the present unfavorable trade conditions.

With the substantially better feeling evident for the coming season, they look forward to materially improved sale conditions for 1933.

The following were elected members of the board of directors: P. O. Messier, P. N. Mainguy, L. P. Gravel, C. S. Griffith, T. R. Price, R. H. Pattison, Adelstan Levesque.

Immediately after the shareholders' meeting at a meeting of the new board of directors, the following officers were appointed: P. O. Messier, president; P. N. Mainguy, vice-president; L. P. Gravel, treasurer; C. S. Griffith, secretary; T. R. Price, director; R. H. Pattison, director; Adelstan Levesque, managing director.

Our Leading Dealers and How They Got That Way

A series of brief biographies of outstanding motor car and truck merchants.

G. M. BERRY

President Berry Motor Car Company, St. Louis, Mo.

G. M. Berry can rest in between sales of Packard cars to the earnest citizens of St. Louis and vicinity and pat himself on the back as a real automotive pioneer. His career in the automotive field began back in 1900 when he joined the staff of the Locomobile Company of America, then busy building and selling steamers. This was just after the Locomobile organization had bought the business of the Stanley Steamer Company at Newton, Mass. Mr. Berry sold eleven of the first 500 Loco steamers built in and around Danbury, Conn.

From Bridgeport, Conn., Mr. Berry followed Horace Greeley's celebrated advice and went westward, tying up with the Thomas B. Jeffery Company at Kenosha, Wis., to help that famous old company build the Rambler car. In the Jeffrey plant, which is now part of the institution presided over by Charles W. Nash, Mr. Berry worked his way from office assistant in charge of everything in general, to sales manager, and eventually vice-president and treasurer.

In 1914 Mr. Berry felt the call of the road again, and this time departed for Toledo, O., where he remained with the Willys-Overland organization until 1920. During that time he served as advertising manager, director of branches and assistant commercial manager. He had charge of the location and organization of the big branch system which Willys-Overland built up at that time.

In the latter part of 1922 Mr. Berry made an arrangement with the Packard Motor Car Company to take over the branch that the company was operating in St. Louis, organizing the Berry Motor Car Company to that end. This company has since conducted the distribution of Packard motor cars in the St. Louis territory.

Mr. Berry has been active in the civic affairs of his adopted city. He is now president of the Automobile Dealers Association, vice-president of the Manufacturers and Merchants Association, a director of the Chamber of Commerce, a director of the automobile club, and a member of the executive committee of the local community fund.

G. M. BERRY

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

Published Every Day Except Sunday Monday and Holidays, and Tuesday, When a Holiday Falls on Monday

AUTOMOTIVE DAILY NEWS PUBLISHING CORPORATION

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The Importance of Pay Rolls

AUTOMOTIVE DAILY NEWS long since remarked on the superficial hopelessness of the depression situation, with its apparently vicious circle. It is obvious, of course, that industrial production cannot increase until the American people are able to buy a greater volume of products, and equally obvious is the fact that people cannot buy until they have jobs to supply them with money wherewith to make purchases. These two conditions seem to join in a vicious circle from which there is no escape.

Of course the actual fact is that the circle is not really complete. The psychology of depression has kept people from spending money in normal proportion to their reduced incomes. The urge to save, to avoid spending has been almost universal, as is indicated by the fact that savings banks last year, the leanest we have ever had, lost but 2 per cent. of their volume of deposits.

Revival will come gradually, in tiny trickles, so to speak. People will begin to spend a little more of whatever they are earning, as confidence increases. Factories will be able to increase output, little by little, creating more jobs and adding to the buying power.

Our immediate task is to get as many people back at work as rapidly as we can. President Roosevelt has emphasized this on many occasions, indicating the importance of pay rolls in the effort to create revival.

In one of his recent statements the President called attention to the contribution to labor that is given through the building of warships. His statement that 85 per cent. of the money spent on new fighting ships goes to labor surely is enlightening. The other 15 per cent. goes mainly into materials, and in this proportion of the total cost there is a labor factor going back into the mills that produce steel plates and other products used in this construction.

In our own industry we recently came upon a shining example of how production creates pay rolls and consequently buying power among our citizens. In a normal year the pay rolls of the Chrysler organization exceed the entire investment in plants. Just analyze that fact. Wages paid out amount to a greater sum than was needed to erect all the gigantic factories used by the various divisions of this corporation. There is no doubt that the same condition exists in other automobile companies.

Looking at the reverse, it is obvious that reduction of normal output pulls down the pay roll total and its contribution to general buying power to an enormous degree. By the same token, any increase in pay rolls at the present time will find an instant reflection in buying power and make a great contribution to the creation of more jobs in many diverse industries.

Price Guarantees

At the present time there seems to be a movement in certain quarters to force manufacturers to guarantee not to increase prices for six months or nine months or some other considerable period.

Surely any such guarantee would be a grave mistake. A general agreement not to raise prices for six months would simply hold the present status for that period. We need higher prices as one of the factors in revival. Prices are too low in almost every line, including the motor car business. A general upward revision of prices would enable many manufacturers to start showing a profit instead of a loss.

A guarantee not to raise prices for a brief period may be a constructive expedient, helping the dealer and not injuring the manufacturer, but any move to "set" prices for a long term is a definite obstacle to revival of industry and trade.

In This Corner . . . .

Opinions, suggestions, complaints, criticisms, grievances or what have you. Open to every one to say anything, anyhow, any time. The communications printed in this department represent the ideas and opinions of our readers. They are not necessarily ours. If you have something to say on any phase of automotive activity, wholesale, retail or abusive, let us hear from you and we will tell the world.

Truck Ass'n Executives Have Model Reciprocity Bill

Automotive Daily News: This association (Truck Association Executives of America) began its work in behalf of reciprocity and national uniformity in 1926. The Chicago meeting culminated in the French Lick meeting, which I think you will admit was the most important national conference on reciprocity and uniformity ever held.

During the past six years reciprocity clauses have been enacted into law in fifteendifferent states. These early provisions, however, did not meet questions coming out of utility commission regulations because they were originally intended to apply only to license plates.

We enclose copy of a measure passed by the Indiana Legislature recently, and as this measure provides a basis upon which every department of state involved in motor transportation can get together for a constructive study of reciprocity and uniformity, we believe that Truck Association Executives of America are entitled to recognition and some comment upon the part of your paper for its accomplishment.

The enclosed measure was also provided to the legislatures of all states in conference during this year. We are not informed, however, as to how many states enacted the provision into law.

Trusting you will give this board reciprocity and uniformity provision and consideration to which it is entitled, we are,

TOM SNYDER,
Truck Ass'n Executives of America.
Indianapolis, Ind.

The reciprocity provision referred to by Mr. Snyder is embodied in the following bill: A bill for an act providing for grant of authority to certain state officials to establish reciprocity between states and commonwealths and the District of Columbia of the United States.

Section 1. Be it enacted by the General Assembly of the state of Indiana, that the governor of the state of Indiana is hereby authorized and empowered to create and establish a commission to consist of three (3) officials of the state of Indiana, preferably the officials in charge of the registering and the licensing of motor vehicles, a member of the Public Service Commission, and a direct and personal representative of the governor, or a member of the Highway Commission, whose duty it shall be, as occasion may arise, to confer with officials of other states and commonwealths and the District of Columbia for the purpose of agreeing upon, establishing and maintaining fair, equitable and satisfactory reciprocal arrangements and plans for the movement of motor vehicles from, to, and between the different states and commonwealths and the District of Columbia of the United States, and regulating the use of same on the roads and highways of the state of Indiana.

Section 2. The governor of the state of Indiana and the commission appointed and designated by him are hereby authorized and empowered to engage in any conference with officials of any or all other states, commonwealths or the District of Columbia that, in their judgment, would be in the interest of the state of Indiana and the citizens thereof, and they are hereby empowered to enter into such reciprocal contracts and agreements as they may deem proper, expedient and fair and equitable with the proper authorities of adjoining states or any or all of the states or commonwealths and the District of Columbia regulating the use of motor vehicles on the highways of this state. They are likewise empowered and authorized to confer, advise with and enter into such contracts and agreements as they may deem proper, expedient, fair and equitable with Legislative bodies and/or commissions, boards or persons duly authorized and empowered by legslatve bodies of this and other states, and the District of Columbia, with a view to promoting and establishing such fair and equitable reciprocal agreements for the movement, registration and regulation of motor vehicles owned and licensed in this state and owned and licensed in other states and in the District of Columbia.

Section 3. All laws and parts of laws in conflict herewith are hereby repealed.

Section 4. Whereas, An emergency exists for the immediate taking effect of this act, the same shall be in full force and effect from and after its passage.

Well, Well, Well, 31 Years Old and Still Running

Automotive Daily News: Referring to article in March 18 edition, Professor Allen's 1910 Autocar is, comparatively speaking, a new car.

Recently, in thumbing through our file of 18,000,000 passenger car owners, we ran across a 1902 year model Oldsmobile.

To the best of our knowledge, this is the oldest car carrying 1933 license plates and actively in use.

It is a two cylinder job owned by A. MacDonald, who operates a filling station at 1774 Hillhurst Avenue, Hollywood, California.

Mr. MacDonald says that he bought the car for $800 in 1902 and that it has been in continuous operation for thirty-one years.

Mr. MacDonald still takes it out on a Sunday afternoon and mingles with the Rolls Royces of the movie stars.

Incidentally, in looking over the Hollywood file of Rolls Royce owners we find Doug Fairbanks, Tom Mix, Clara Bow, John McCormack, Carl Laemmle, Harold Lloyd, Lew Cody, Marlene Dietrich and Betty Compson.

Cadillacs and Lincolns are too commonly used to mention.

Lupe Velez, until recently, seemed to be contenting herself with a 1930 Ford sedan, but she spoiled a good story by stepping out and buying herself a Duesenberg. Other Duesenberg owners are Joe Brown and Gary Cooper.

H. F. LEWIS,
Reuben H. Donnelly Corp, N. Y. City

Some More Old Timers

By A. M. ROBBINS

In your issue of March 9 was a story about Joe Diebler, whereby he sent in a list of 117 cars which either are has-beens or orphans, and states that with two exceptions he has driven all of them. You tell Joe for me that his memory is short.

I believe that I have driven all of the 117 that he listed, with the exception of two or three at the most. In addition to that, I give the following list of forty-two that come to my memory that he doesn't list, and, to the best of my recollection, I have driven all of the cars on both lists, with the possible exception of two or three:

Locomobile, Holsman, Parry, Marion, Aerocar, Diamond T, Murray 8, Moline Knight, Flanders, Great Smith, Queen, Croxton Keeton, Selden, Alco, Orient, American Fiat, Haynes, Amplex, Hewitt, Atlas, Welch, Royal Tourist, Bergdoll, Holliday, Elmore, Columbus, Pope Tribune, Bay State, Daniels 8, Searchmont, Matheson, du Pont, Cameron, Argonne, Brewster, Pennsylvania, Reading Standard, Klinecar, De Luxe, F. A. L., Dragon and Interstate.

I wonder if there isn't a list somewhere of all the automobiles that have been manufactured in this country. I believe it would be quite interesting to keep such a list. Let me hear from you.

NEW DETROIT BANK MAY OPEN TODAY

Detroit, March 23.—The new bank sponsored by the General Motors Corporation and the Reconstruction Corporation, is still in the stage of adjustment of details, but is expected to open tomorrow. While a report to this effect was circulated today it could not be definitely confirmed before this paper went to press. If this is accomplished, there will be a disbursement of about 40 per cent. of the deposits, releasing more than $200,000,000 in this city.

In the meantime, Governor Comstock has issued another proclamation extending the state banking holiday for a third time. Banks operating under the proclamation of February 21 are permitted to continue under this latest pronouncement. A total of 148 banks are now in operation under permits granted by the State Banking Commission.

It was announced in Lansing today that George H. Kirchner had been appointed conservator for the Guardian Trust Company. It will be announced a little later whether or not this banking institution can be reorganized.

Alfred P. Sloan's announcement that General Motors had no intention of permanently embarking in the banking business, has been noted with interest in this city. The big automotive manufacturing organization has simply stepped into the breach as a pinch hitter to give this city banking facilities that will enlist the confidence of the community.

The general feeling here is that as soon as the banking situation has been placed on a basis of general confidence, there will be a rapid revival of activity in the automotive industry. The feeling is also general that the industry has done miraculously well during the national banking holiday era and the bank of orders that has piled up during this period of general stringency has astonished automotive executives.

COMING EVENTS

MARCH

20-25—Union City, N. J. North Hudson Automobile Show, Columbia Park.

27-April 1—Minneapolis. Automobile Trade Association, Northwest Automobile Show, Auditorium.

27-April 1—New London, Conn. Automobile show, State Armory.

APRIL

12-27—Milan, Italy. International Automobile and Nautical Show.

21-21—Cleveland, O. National Petroleum Association, meeting.

MAY

2- 5—Washington, D. C. United States Chamber of Commerce, meeting.

17-18—Tulsa, Okla. American Petroleum Institute, mid-year meeting, Mayo Hotel.

JUNE

16-17—Louisville, Ky. American Automobile Association, convention.

18-July 2—Bordeaux, France. Seventh Automobile, Nautical and Aeronautical Show.

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GENERAL departmental manager is desirous to make a connection with a reliable distributor. Would prefer a connection with a distributor who is in need of assistance to develop wholesale, retail and service business. Can furnish best of references as to ability and characted. My age 38. Versatile and capable to operate in any market. Have broad merchandising experience. Automotive Daily News, Box 102, 350 Hudson Street, New York city.

DEFINING THE JOB OF A TRUCK FLEET SUPERINTENDENT

The average fleet is an adjunct to a coal business, a dry goods store, a public utility or a dairy—and, therefore, not the revenue producing part of the business, according to F. K. Glynn, automotive engineer for the American Telephone and Telegraph Company, operating 18,000 vehicles.

In defining the job of a fleet superintendent, Mr. Glynn says that it is his job to keep his vehicles on the road 100 per cent. of the working hours, to keep them safe to operate and to do so economically.

"In a large fleet this job reaches the proportions of a separate business," Mr. Glynn says. Descriptions of fleet shops reveal parts stocks including unit assemblies totaling $100,000 to $200,000. Costs of shop buildings and equipment likewise run into big figures, especially around New York and fifty to 100 mechanics are often claimed by individual fleet superintendents when they burst into print.

"Unfortunately, however, in these times of economic stress or any other time for that matter, all of these stocks, buildings and personnel are duplicated by dealers, manufacturers and independent repair shops in New York city.

"Considering parts stock alone $100 investment per vehicle is not uncommon. For these parts the fleet operator pays the manufacturer or the dealer a shelf-carrying charge which is included in the net cost of each part. The fleet superintendent then proceeds to duplicate this with carrying charges of 10 to 15 per cent. when he puts the parts on his own shelves.

"Obsolescence is often a factor in parts stocks. The vehicles for which the parts were purchased are traded, whereupon the original cost of the parts must be added to the carrying charges and the total becomes a loss. Furthermore, a large stock of parts requires storekeepers, stock runners, supervisor, buyers and clerks. These men are non-productive. Last, but not least, stock shortages at inventory time are written in red, not black.

"Another duplication with accompanying investment, carrying charges and overhead between the fleet and the commercial shop concerns special tool equipment. Naturally such tools decrease labor charges, but can a fleet with relatively few vehicles of a given make afford to own tool equipment commensurate with any manufacture's service station repair shop in New York city?

"Fleet shops present other difficulties. Shop mechanics and foremen delight in manufacturing every manner of gadget, although available on the market often at lower cost. This, however, and unfortunately for costs in general, serves as a filler-in when the repair work load is light. Fleet shops frequently anticipate repairs to other units when a truck comes in for a specific repair, and along this same line the fleet shop, when slack, goes looking for vehicles on which to make repairs before they are required, for idle time of mechanics must be kept at a minimum.

"Peaks and hollows in the fleet shop work load reduce efficiency; for, if the shop is large enough to care for peaks, it is partly idle otherwise, or, if too small for peaks, trucks pile up for repairs during rush seasons. On the other hand, with many customers in varied businesses, the commercial shop is not affected by the hill and dale in service required by any one fleet.

"Last but not least of these arguments, is the effect that a fleet shop has on the fleet superintendent. At best, the shop takes a lot of his time and interest. Frequently, however, he is so wrapped up in making his shop pay that he neglects the economies of running vehicles upon the road. Furthermore, maintenance or repairs constitute, I understand on good authority, about one-twelfth of a fleet superintendent's job.

"If a fleet superintendent decides to eliminate his shop, how shall he proceed?

"First, the fleet superintendent should canvass the available dealers, manufacturers and independent shops to find those giving promise of most satisfactory repair service. Incidentally, it should not be neces-

(Continued on Page 6)

SPECIALIZED ADVERTISING FOUND EFFECTIVE

(Continued From Page 2)

wheel and lathe are included in the equipment of this section, along with complete generator and magneto testing appliances and an undercutter for mica. Adjacently located is a section equipped with coil testing apparatus, a condenser tester, and a condenser for testing all kinds of electrical appliances.

Still another department has been set up for servicing and rebuilding Briggs & Stratton gasoline stationary engines, and this department draws considerable business from six middle western states.

The battery department is one of the best equipped in the city and includes a still for making distilled water.

The opposite side of the building is devoted to floor work, with the stock and parts department at the front end across the entrance driveway from the offices. There are stalls for twelve cars, while during rush periods three times that many vehicles can be accommodated on the floor without interfering with the central traffic lane.

The company is central distributor for Exide batteries in 25 counties of eastern Nebraska and western Iowa, and a new deluxe Chevrolet delivery truck is used in covering the territory. This truck as well as the Ford service truck is kept in spic-and-span paint and mechanical condition, as Mr. Anderson values his trucks highly as traveling billboards.

BROWN-LIPE-CHAPIN SYRACUSE PLANT TO CLOSE ON APRIL 1

Syracuse, N. Y., March 23.—Production has practically ceased at the Browne - Lipe - Chapin differential gear plant property of General Motors and the final shutdown has been set for April 1.

General Motors has made arrangements with the Donald T. Pomeroy Organization of Syracuse to lease space in the Brown-Lipe Chapin Building to different manufacturing concerns creating an "industrial center" with modern facilities, available for various types of production. Negotiations are now in progress with several prospective tenants.

Six stories high, including basement, the structure, built of steel and concrete, contans more than 400,000 square feet of floor space. General Motors acquired the business and assets of the Brown-Lipe-Chapin Company for approximately $8,500,000 about ten years ago.

CANADA PUTS NEW TAX ON TIRES AND TUBES

Montreal, March 23.—Under the new Canadian Budget a special tax of five per cent is levied on automobile tires and tubes. The sales tax remains at six per cent. Of the rather limited list of tariff changes there are two or three of special interest.

MULLINS NOT SERIOUSLY HIT BY RECEIVERSHIPS IN STUDEBAKER, WILLYS

Cleveland, March 23.—Charles C. Gibson, president of Mullins Manufacturing Corp., stated that, although the company had done business with Studebaker Corp. and Willys-Overland, it was not seriously affected by the receiverships of the two companies.

Mullins, he said, would have roughly $300,000 tied up temporarily because of the situation. Mullins is operating on a reduced basis, due to almost complete lack of orders from the automobile industry.

Mr. Gibson said the company is prepared to go ahead with increased production as soon as release of orders permits.

CHICAGO TRUCKERS SEE $500,000 BEER HAULAGE

Chicago, March 23.—Passage of legislation legalizing the sale of beer will bring $500,000 in additional revenue annually to motor truck operators of this state, according to an estimate made today by the Illinois Motor Truck Operators' Association.

The estimate is based upon a survey made by the association among its members, who comprise 400 trucking contractors, Walter E. McCarron, manager of the organization, stated. He added that owners of trucking lines have already added equipment to take care of large bulk shipments of the brewing industry, and that a number of contracts with the brewers have been signed.

CORY ADAMS APPOINTED AUTOMOBILE ADVERTISING HEAD, WORLD-TELEGRAM

New York, March 23. — Cory Adams, a member of the automobile advertising staff of the New York World-Telegram, has been appointed automobile advertising manager of that paper, succeeding J. B. Jones, whose appointment as Detroit manager for the Scripps-Howard newspapers was announced yesterday in Automotive Daily News.

Cory Adams is one of the veteran automobile advertising men in the metropolitan d'strict and his host of friends will wish him every success in his new position.

H. E. YALE HONORED BY HIGHWAY GROUP

Toledo, Ohio, March 23.—Highway transportation men here honored H. E. Yale, district manager for Fruehauf Trailer Company, for his activity in Ohio in behalf of truck, trailer and bus transportation by naming him chairman of the Toledo Chapter of the Ohio Highway Users' Association. Mr. Yale has been very active in organizing Ohio highway users in their campaign to obtain justice for truck, trailer and bus operators in the Buckeye State.

NEW RECORD CHALKED UP BY TRUCK DRIVERS IN N. J. SAFETY CONTEST

Jersey City, N. J., March 23.—Commercial vehicle operators competing in the inter-fleet drivers' safety contest of the Hudson County Safety Council established a new low accident record for these contests in February by operating at an average of 11.82 accidents per 100,000 vehicle hours. The best previous record in the three and one-half years in which these contests have been conducted was in January when a mark of 12.65 was set.

The constant improvement that has been shown by the commercial fleet operators in this area during the last year is reflected in a comparison of the averages for the periods September to February, 1932-1933, as against 1931-1932. In the last six months' period ending February 28 of this year, the fleets averaged 14.82 accidents per 100,000 vehicle hours, as against 24.15 in the same period a year ago, or a 37 per cent. decrease in accidents.

A better than 30 per cent. reduction in the personal injury accidents was also reported. Twenty-three personal injuries have been sustained in the six months' period just completed, as compared with thirty-three injuries a year ago.

Twenty-five fleets, the Safety Council reports, have been operating without a reportable accident. Seven of these fleets have now operated for three and one-half years without an accident.

Six Truck Sales Leaders for Feb.-Jan., 1933

Returns for today: Florida, Illinois, Kansas, Missouri, New Jersey, New Mexico, Ohio, Oregon, Pennsylvania, Utah, Virginia and the District of Columbia.

In this table: 24 states and the District of Columbia.

FEBRUARY, 1933 State	Sales	FIRST		SECOND		THIRD		FOURTH		FIFTH		SIXTH	
Delaware	39	Chev	28	Ford	7	Int	3						
Florida	366	Chev	149	Ford	132	Int	41	Austin	27	Dodge	7	Reo	3
Idaho	19	Chev	7	Ford	6	Int	4	Dodge	2				
Illinois	491	Chev	154	Ford	112	Int	78	DT	38	White	20	Reo	14
Indiana	275	Chev	134	Ford	58	Int	37	Dodge	15	G-I	7	Stude	4
Kansas	151	Chev	93	Ford	37	Int	10	DT-D	3	Stude	2	M-R	1
Maryland	190	Chev	106	Ford	33	Int	20	White	6	GMC	4	Dodge	3
Michigan	299	Chev	151	Ford	63	Dodge	22	Int	18	G-Wi	10	Reo	9
Minnesota	203	Chev	118	F-In	28	Reo	6	DT	5	Federal	4	Stude	3
Missouri	555	Chev	299	Ford	99	Int	60	Dodge	25	DT	18	Fe-W	9
New Hampshire	49	Chev	27	Ford	11	Int	7	*	1				
New Jersey	363	Chev	152	Ford	72	Int	52	Dodge	30	GMC	15	DT	8
New Mexico	37	Chev	18	Ford	10	Int	9	Dodge	15	Reo	10	GMC	9
North Carolina	230	Chev	138	Ford	58	Int	17	DT-D-G	3	Au-I-R	1		
North Dakota	13	Ford	5	Chev	4	Int	3	Reo	1				
Ohio	419	Chev	197	Ford	115	Int	40	Dodge	15	Reo	10	GMC	9
Oregon	55	Chev	25	Ford	19	Int	8	Dodge	2	Federal	1		
Pennsylvania	818	Chev	335	Ford	230	Int	101	Dodge	43	GMC	16	Stude	13
South Carolina	76	Chev	39	Ford	28	Int	5	Austin	2	D-G	1		
South Dakota	36	Chev	15	Ford	14	Int	5	DT-S	1				
Utah	32	Chev	19	Ford	6	Int	5	Dodge	2				
Virginia	252	Chev	143	Ford	60	Int	21	Dodge	10	GMC	5	DT	4
West Virginia	102	Chev	53	Ford	19	Int	11	Dodge	7	G-R	4	I-St	1
Wisconsin	166	Chev	73	Ford	45	Int	22	DT-D	6	G-S	4	Sterling	2
Dist. of Columbia	59	Chev	24	Ford	13	Austin	6	G-In	4	Mack	3	*	1

JANUARY, 1933 State	Sales	FIRST		SECOND		THIRD		FOURTH		FIFTH		SIXTH	
Delaware	49	Chev	29	Ford	15	I-IN	2	Reo	1				
Florida	318	Ford	149	Chev	96	Int	28	Austin	26	Indiana	5	Reo	4
Idaho	39	Chev	20	Ford	15	Int	3	GMC	1				
Illinois	852	Chev	242	Ford	199	Int	105	DT	70	GMC	54	Dodge	36
Indiana	405	Chev	147	Ford	141	Int	58	Stude	14	Dodge	12	GMC	9
Kansas	85	C-F	37	Int	4	M-S	2	D-G	1				
Maryland	166	Chev	69	Ford	40	Int	13	GMC	7	Dodge	5	Autocar	4
Michigan	401	Chev	176	Ford	135	Int	34	Federal	16	D-S	8	G-R	7
Minnesota	291	Chev	147	Ford	93	Int	20	Dodge	11	DT	8	Stude	4
Missouri	206	Chev	92	Ford	76	Int	19	Dodge	5	GMC	4	Indiana	3
New Hampshire	37	Chev	17	Ford	10	DT-In	3	*	1				
New Jersey	358	Chev	137	Ford	101	Int	29	Dodge	17	Mack	13	DT	11
New Mexico	73	Chev	38	Ford	28	Int	5	D-S	1				
North Carolina	402	Chev	194	Ford	138	Dodge	18	Int	17	GMC	9	Au-DT	6
North Dakota	30	Chev	16	Ford	8	Int	4	D-G	1				
Ohio	507	Chev	190	Ford	186	Int	56	Dodge	14	DT	12	G-R-W	6
Oregon	40	Chev	18	Ford	17	G-I	2	Reo	1				
Pennsylvania	842	Chev	344	Ford	259	Int	80	Dodge	37	White	20	GMC	19
South Carolina	113	Chev	69	Ford	36	Int	6	Austin	4	GMC	3	Dodge	2
South Dakota	38	Chev	15	Ford	14	Int	5	*	1				
Utah	60	Chev	35	Ford	14	Int	5	GMC	3	Dodge	2	Reo	1
Virginia	256	Chev	137	Ford	84	Int	9	D-G	8	White	4	Reo	3
West Virginia	153	Chev	75	Ford	56	Int	13	GMC	3	D-I	2	Stude	1
Wisconsin	236	Ford	91	Chev	73	Int	18	DT	15	Dodge	10	GMC	8
Dist. of Columbia	82	Ford	38	Chev	22	Int	8	White	7	D-G	2	*	1

KEY TO ABBREVIATIONS AND SYMBOLS

A—Autocar; B—Brockway; C—Chevrolet; D—Dodge; DT—Diamond T; F—Ford; Fe—Federal; G—GMC; I—Indiana; In—International LFR—La France-Republic M—Mack; R—Reo; S—Studebaker; St—Stewart; W—White; Wi—Willys.

DEFINING THE JOB OF A TRUCK FLEET SUPERINTENDENT

(Continued from Page 5)

sary for the fleet to do the canvassing—but it is! During these visits to commercial shops, the fleet superintendent should give a thorough outline of his problems and requirements and should foster competition between the various shops for his work.

"A fleet should start slowly on this new plan of operation. It should send repair work to the selected repair shops in proportion to the rapidity of absorption of the best of the shop forces into the operating forces, and the culling of these latter forces with the view eventually of employing only sufficient maintenance forces to care for daily repairs and adjustments, such daily operations to consist of individual jobs requiring, say, less than four man hours.

"Next, the fleet should select outstanding mechanics to be trained as inspector-repairmen. Good personality is essential in this job, for these men, in addition to making inspections, adjustments, light repairs, etc., will act as the agents of the fleet in buying repairs at the commercial shops and as liaison between the fleet drivers, the daily maintenance force, and the superintendent. Inspector - repairmen should be expected to spread the gospel of safe and economical driving. As to their work with the commercial shops, inspector-repairmen should arrange for repairs to be made, should inspect and test a representative percentage of the repair jobs and finally check the bills.

"When a fleet is well under way on the new plan, it is then time to consider selling the stock of parts to the commercial shops patronized to dismantle the fleet shop and sell the machinery and to dispose of the property or to turn it into garage space.

When repair work is sent to commercial shops considerably less cost-keeping evolves upon the fleet organization, for the commercial shop keeps time, figures overhead, disperses parts, etc. with all of the summarized on the bills rendered to the fleet. In general and considering for the moment, the matter of cost keeping, a fleet will no doubt need separate cost accounts for gasoline, oil, tires, repairs, vehicle service, garage service, depreciation, supervision, rents, license fees, insurance miscellaneous, etc. For simplification and economy, however, why not group the vehicles for cost-keeping by makes, gross vehicle weight, power equipment, job assignment, etc., ignoring individual vehicle costs, except for a unit-repair record card for each vehicle, this card to be maintained by the inspector-repairman, not the cost keeping or accounting forces. Such a repair card should show only the essential information covering the repairs made to each individual vehicle at commercial shops. This information is available from the bills for repairs and may be entered on the cards as the inspector-repairmen checks for accuracy and fairness in billing.

"The unit repair record-card has many virtues. It shows the recurrance of similar troubles on the same vehicle and in this respect sits in judgment upon the driver, the commercial repair shop and the vehicle itself. It also contributes information on when to retire the vehicle."

FINANCIAL NEWS

(Continued from Page 2)

clared the regular quarterly dividend of 75 cents on the $3 preferred stock, payable April 15 to stock of record April 3.

TUNG-SOL

New York, March 23.—Tung-Sol Lamp Works, Inc. for 1932 reports a net loss after taxes and other charges of $100,022, contrasted with net profit of $352,865, equivalent, after allowing for dividend requirements on 60,919 $3 preferred shares, to 74 cents a share on 228,510 no-par common shares, in 1931. Current assets on December 31 were $1,206,983 and current liabilities, $143,572, against $1,498,844 and $131,517, respectively, at close of 1931.

WESTON ELECTRICAL

New York, March 23.—Weston Electrical Instrument Corporation for 1932 reports net loss after depreciation, taxes and other charges, $143,353, contrasted with net profit of $122,264, equivalent after Class A dividend payments, to 32 cents a share on 164,000 no par common shares, in 1931.

GOODYEAR DROPS CHEAP TIRE TRADE

(Continued from Page 1)

Pathfinder line fits into what is known as the competitive price market.

"In adopting this new merchandising policy and price schedule we hope for a new harmony in the automobile tire industry which has, quite frankly, been fraught with discord.

"During the past two months there has been considerable discussion of the ailments of the tire industry. Thinking appears to have crystallized to a point where there is a seeming accord in principle as to cause and remedy.

"During the past several months list prices have not represented the prices at which tires were actually sold in practically all the markets. Consequently, while the new lists we are sending out today represent a decline of 20 per cent. from the old lists, the real selling price of tires is not reduced by anything near such a percentage.

"This new plan represents in principle what we believe is the best judgment of most of the leading factors in the tire industry. It represents a sincere effort to restore stability. It conforms to an announcement made yesterday by one of our largest competitors. Whether it will find complete acceptance throughout the industry remains to be seen. But if the plan is accepted we may assume that the future will see it serving as a basis for considerable improvement in the lot of the tire dealer, the worker and the shareholder.

"Tire dealers will benefit by having only two lines on their shelves. Heretofore they have been compelled to carry four lines with correspondingly high investment in inventory. They may now carry complete sizes with a considerable reduction in such investments. From the viewpoint of the manufacturer it is quite apparent that greater economy of operation is possible through the elimination of two of the four lines."

Cumulative New Commercial Car Registration Statistics, February, 1933

Figures in this table are from R. L. Polk & Co. of Detroit, with the exception of Illinois, which are supplied by the Robinson Advertising Service, Springfield, Ill., and New Jersey, which are furnished by the New Jersey Motor List Co., New Car Division, Trenton, N. J. Metropolitan district figures compiled by Sherlock & Arnold, New York city, are included in New York state total. Readers desiring county, city, or town lists, or lists of owners in any given section, may obtain these by addressing any of these three companies. Some of this data has been published previously, but it is given here complete for the convenience of our subscribers.

Returns for today: Florida, Illinois, Kansas, Missouri, New Jersey, New Mexico, Ohio, Oregon, Pennsylvania, Utah, Virginia, District of Columbia

In this table, 24 states and District of Columbia

States	Austin	Autocar	Brockway	Chevrolet	Diamond-T	Dodge	Federal	Ford	G. M. C.	Indiana	International	La France Republic	Mack	Pierce-Arrow	Reo	Rockne	Sterling	Stewart	Studebaker	White	Willys	Miscellaneous	Totals	States
Delaware				28				7			3											1	39	Delaware
Florida	27			149	2	7		132		2	41		2		3					1			366	Florida
Idaho				7		2		6			4												19	Idaho
Illinois		3		154	38	12	6	112	9		78		10		14		4		5	20	1	25	491	Illinois
Indiana	3			134	3	15	2	58	7	7	37				3			1	4			1	275	Indiana
Kansas				93	3	3		37			10		1		1				2			1	151	Kansas
Maryland		2	2	106	2	3	2	33	4		20		1	1	2			1	2	6	1	2	190	Maryland
Michigan				151		22	5	63	10		18	1			9	2			2	10	2	4	299	Michigan
Minnesota				118	5	2	4	28	2		28				6				3		1	6	203	Minnesota
Missouri		2		299	18	25	9	99	8	6	60	1			7				8	9	2	2	555	Missouri
New Hampshire				27		1		11			7				1			1	1				49	N. Hampshire
New Jersey	1	3	1	152	8	30	2	72	15	4	52			1	6			1	3	4		8	363	New Jersey
New Mexico				18				10			9												37	New Mexico
North Carolina	1			138	3	3		58	3	1	17				1							5	230	North Carolina
North Dakota				4				5			3				1								13	North Dakota
Ohio	1	2		197	6	15		115	9	5	40		1		10	4			5	3	2	4	419	Ohio
Oregon				25		2	1	19			8												55	Oregon
Pennsylvania	1	11	7	335	9	43	2	230	16	4	101		7		12	4		6	13	7	4	6	818	Pennsylvania
South Carolina	2			39		1		28	1		5												76	South Carolina
S. Dakota				15	1			14			5								1				36	South Dakota
Utah				19		2		6			5												32	Utah
Virginia	2			143	4	10	2	60	5		21									3		2	252	Virginia
W. Virginia				53		7		19	4	1	11				4			1				2	102	W. Virginia
Wisconsin				73	6	6		45	4		22						2	1	4		1	2	166	Wisconsin
Dist. of Col.	6	1		24	1	1	1	13	4		4		3			1							59	Dist. of Col.
Totals	44	24	10	2501	109	212	36	1280	101	30	609	2	25	2	80	11	6	12	53	63	14	71	5295	Totals
Delaware, 1932				22				32	3		6									1		4	68	Delaware, '32
Florida, 1932				157		14	1	194	9		23				9					2	1	4	415	Florida, 1932
Idaho, 1932				16		5		11			6				1					1	1	4	45	Idaho, 1932
Illinois, 1932		3	4	274	41	45	18	154	50		92	1	5		7		2	1	10	4	8	39	758	Illinois, 1932
Indiana, 1932		1	13	169	2	15	3	136	15		50	4		2	8			2	8		5	5	438	Indiana, 1932
Kansas, 1932				178	1	15		68	4		34	1	1		3				2		2	10	319	Kansas, 1932
Maryland, '32		3	5	105	1	10	1	62	7		21			1	5				2	5	1	1	230	Maryland, '32
Michigan, '32				169		14	7	171	18		26	2			10			1	14		4	15	451	Michigan, '32
Minnesota, '32				163	10	25	2	120	9		34	1	5		9			1	8	7	2	2	398	Minnesota, '32
Missouri, 1932		1	1	463	20	36	12	321	46		100	2	5		36		1	1	10	1	9	26	1091	Missouri, 1932
N. Hamp., '32				26	5	1		20	1		1				1			1	1	1	1		59	N. Hamp., '32
New Jersey, '32		1	2	167	24	27	4	138	25		39	2	7	3	19		1	4	6	9	4	12	495	New Jersey, '32
N. Mexico, 1932				21		1		11	1		1								1	1			37	New Mexico, '32
N. Carolina, '32				108	1	4		67	7		10				2					1		5	205	N. Carolina, '32
N. Dakota, '32				10				13			6								1				30	N. Dakota, '32
Ohio, 1932		4	5	221	5	22	2	264	26		50		2		10		1	9	18	5	6	28	678	Ohio, 1932
Oregon, 1932				29		5	2	31	6		12			1	1				4		1	4	96	Oregon, 1932
Penn., 1932		8	6	382	5	66	5	350	31		122	1	15	2	21		5	25	15	11	29	18	1117	Penn., 1932
S. Carolina, '32				47		2	1	40	6										2			2	100	S. Carolina, '32
S. Dakota, '32				29		4		15	1		15								2		1		67	S. Dakota, '32
Utah, 1932				20		2		26	5		4				2						1		60	Utah, 1932
Virginia, 1932		1		217		15		119	14		18				6				2	2		2	396	Virginia, 1932
W. Virginia, '32			1	50		10		41	6		8				3					1	4	1	125	W. Virginia, '32
Wisconsin, '32				122	5	5	2	87	13		17	1	1		5		1		6	1	2	14	282	Wisconsin, '32
Dist. of Col., '32		1		35	2	4	3	46	2		5		3	1			1					3	106	D. of Col., '32
Totals, 1932	**	23	37	3200	122	347	63	2537	305	*	700	15	44	10	158		12	45	112	54	82	200	8066	Totals, 1932

**Carried in the miscellaneous column. *Combined with Brockway.

Production—Engineering—Factory

Edited by Herbert Chase

DESIGNING FOR 300 M.P.H. SPEEDS

In the current issue of The Autocar there is an extremely interesting article by R. A. Railton, designer of the Blue Bird in which Sir Malcolm Campbell recently broke the world's speed record at Daytona. In his article Mr. Railton tells of the problems involved in the production of such a car as the Blue Bird and how he solved them to enable Sir Malcolm to achieve a speed of nearly 275 miles per hour. Mr. Railton's article follows:

A car like the Blue Bird does not differ so fundamentally from the ordinary touring car as some people imagine. Its main features are really much the same although their relative positions are rather different. Generally speaking, in an ordinary car the problem is to keep the machinery out of the way of the body and passengers, while in the Blue Bird the aim was to keep the machinery and the one passenger out of the way of the body. These two divergent claims naturally result in rather different looking vehicles, although the general principles of construction are exactly the same.

It is pretty generally known that in the case of a motor car going at very high speed nearly all the power of the engine is being used to overcome the resistence of the air. The resistence offered by the friction of the tires on the ground and by the internal working of the tires themselves is comparatively small.

Some idea of the actual pressure of the air on the body may be gained by picturing the force required to push a two-ton truck up Polock Hill. Going a step further one gets the startling impression of the enormous power of hte Rolls-Royce engine when one realizes that it can overcome this enormous pressure and, given ideal circumstances, maintain a speed of 300 miles per hour against it. This all means roughly that the fastest car will be the one with the most powerful engine in the smallest body.

Now, while it is comparatively easy to build a special body to suit a given engine, it is very expensive indeed to build a special engine to suit a given body, and it is for this reason that these world's record cars have usually to be designed round the best existing engine obtainable. The Blue Bird in its latest form was designed round a new engine and an existing chassis. The necessity for using the old chassis placed certain restrictions on the design and performance, but it was decided that the resulting economy of time and money justified these limitations.

The method of arriving at the actual shape of the body will perhaps seem disappointingly unscientific. We made an outline model of the chassis, including in it a solid lump of wood representing the space required for the driver. The whole model was then liberally plastered with plasticine until nothing could be seen except the wheels.

Next, the plasticine was gradually rubbed down by hand until the corners and knobs on the model could be felt near the surface, all the time keeping the contours as smooth and streamlined as possible. Finally a plasticine nose and tail were stuck on, of such shape that they merged naturally into the main body, and the whole was faired off to form what appeared to be the most promising shape.

The model was then placed in a wind tunnel to test its resistance, and further minor modifications were made until the shape of least resistance was found. The full-sized drawings were made by the body builders direct from the model.

I hope that this makes clear the reason for the peculiar shape of these very fast cars, and it is really in these particulars that they differ fundamentally from ordinary touring cars. There is, however, one important point that does not trouble the touring-car designer at all, but which is an ever increasing difficulty with these big cars as speeds get higher, and that is wheel slip. Most drivers remember occasions when on icy or very greasy roads they have felt the rear wheels begin to spin while accelerating on the lower gears.

Although the Blue Bird is geared very high, is very heavy and operates on a very hard sand surface, the power of the engine is so great that it has quite only a small margin of adhesion even in top gear. In both the lower gears the wheels would definitely spin if the throttle were opened fully. If the surface of the beach were sufficiently uneven to jolt the axle at all excessively there would be immediate wheel slip and the driver would have to ease the throttle back. This is the chief reason why a successful record attempt can be made only on a nearly perfect surface.

In order to get even this narrow margin of adhesion on Blue Bird it is necessary to have a certain minimum weight on the driving wheels, and to get this load it has been necessary to use nearly three-quarters ton of lead ballast, in addition to lavishing weight in the construction of the chassis and body. An obvious way out of the difficulty is to use the weight on the front wheels by employing four-wheel drive, and it is probable that all world's record cars made in the future will be constructed on these lines.

It is probable that it will never be possible to discover or to construct a surface so smooth as to prevent occasional wheel spin. Further, it is probable that even a small amount of spin on a tarmac or concrete surface would seriously damage the tires, thus ruling out the use of such a surface for record attempts. On the other hand a moderate amount of slip on a sand surface does not seem to damage them. This leads us to appreciate the benevolence of Providence, which equips the only known areas where the records can be made with what is probably the only surface upon which the tires will stand up.

Too much praise cannot be given to the tire manufacturers, without whose untiring research and unselfish enterprise these record attempts could not even be attempted. The tires used are constructed on exactly the same principles as the ordinary commercial article, although the treatment of the materials and the shape of the section are varied to suit the special conditions. At very high speeds the heat generated inside the wall of the tire so affects the strength of the rubber tread that it is liable to become detached by centrifugal force.

This difficulty is overcome by making the tread very thin indeed, so that its weight is a minimum, and so that it would do no harm if it did fly off. As the heat generated is roughly proportional to the amount the tire deflects under the weight of the car, this deflection is kept at a minimum by using very high pressures. The actual pressure used in Blue Bird's tires is well over 100 pounds a square inch.

One feature of Blue Bird, and of other record-breaking cars, which seems to provoke a lot of interest is the fin or vertical plane at the rear of the body. This fin is intended to act like the feathers on an arrow, in the hope of giving it some directional stability independent of the steering gear. The model is sometimes tested in a wind tunnel, exactly like an airplane model, and the fin adjusted until the model automatically keeps its nose pointed into the wind. The analogy with an airplane, however, is not a very sound one for several reasons, the most obvious (though not the most important) being that a car nearly

(Continued on Page 8)

CHEVROLET, DODGE PISTON EXPANDERS

Two more new expanders have just been announced by the Perfect Circle Company, Hagerstown, Ind. These will be ready shortly for the Chevrolet four-cylinder cars, originally equipped with aluminum pistons, and also for the Dodge four-cylinder cars manufactured in 1923 to 1928, inclusive.

A new feature of these new expanders is a head stabilizer, which is installed along with the regular expander in pistons of the narrow Invar strut type. This stabilizer is a U-shaped spring, designed to hold the head of the piston rigid in relation to the skirt. It is said also to tighten the struts and hold them permanently in place.

The stabilizer is quickly and easily installed in the narrow Invar strut piston and, once the installation has been made, the expander may be placed in the piston in the regular way.

The addition of these two new models brings the entire expander line up to four, the Ford Model A and Plymouth Four having been announced several months ago.

TRUCK LECTURE TEXT AND FILMS AVAILABLE TO TRUCK ASSOCIATION

(Continued from Page 1)

to the truck associations and Highway Users Conference bodies throughout the United States through the Michigan Motor Transport Association, 416 Bagley Ave., Detroit, Mich.

STUDEBAKER BOOSTS EMPLOYMENT DAILY

South Bend, Ind., March 23.—The Studebaker plants are swinging back into action today, with a block or orders on hand somewhere between 1,000 and 2,000. A start was made on Wednesday when more than 600 workers were called back to the colors and operations began in the body plant and in some other divisions.

On Monday of next week it is believe dtaht 3000 or 4,000 men will be back at work in the Studebaker plants. The pay roll will be gradually increased as the confusion resulting from the receivership is ironed out. It is hoped taht normal employment will be in force within a short time. Studebaker, when it is in full operation, employs about 15,000 people, and all these are now waiting hopefully for the call to service at the plants. Full employment in the Studebaker makes an enormous difference in the financial status of this little city.

MASS. MOTOR VEHICLE CODE IS AMENDED

Boston, Mass., March 23.—An amendment to the motor vehicle code of Massachusetts, effective June 1 next, provides that every commercial motor vehicle or trailer with a capacity of two tons or over shall, in addition to its rear light, be quipped with a rear red reflector approved by the registrat of motor vehicles and so placed as to reflect rays of light thrown from behind.

Also effective on the same date is an amendment prohibiting all motor vehicles, except fire apparatus, from displaying a red light in the direction toward which the vehicle is going.

Another amendment, effective May 24 next, provides a penalty for any one riding upon the rear or side of a motor bus without the consent of the person in charge.

A fourth amendment, which went into effect on March 18, requires that any motor vehicle carrying explosive substances or inflammable liquids as a cargo shall come to a full stop before crossing a railroad track.

Pertinent POKES and PARRIES

By HERBERT CHASE, Engineering Editor || By READERS

50-Mile Brakes

A partial answer to Mr. Houpert's question is contained in the article, "Designing for 300-Mile Speeds," in this issue.

It is true, of course, that brakes must be used with discretion when traveling at high speeds. It can hardly be doubted, however, that a car capable of 80 m. p. h. ought to be equipped with more powerful brakes than a car of the same weight and size whose maximum speed is limited to 50 m. p. h.

Our own opinion is that only a small proportion of drivers are capable of handling cars safely at speeds much above 60 m. p. h., and that the emphasis now being laid on the undoubted ability of present-day cars to make much higher speeds is of doubtful advantage to anybody. Certainly, if cars are to be driven at ever-increasing speeds, as they doubtless will be for many years to come, no effort should be spared to make them as safe as possible at such high speeds. Skimping on brakes is not good policy from any point of view, especially as all brakes are subject to some wear and few are kept in the best possible condition.

Incidentally (and this is, of course, rather aside from the subject discussed by Mr. Houpert) we are informed that, although most passenger cars meet the braking requirements of the law in Mr. Houpert's state, Connecticut, when the brakes are kept in good condition, the same cannot be said of trucks, even when new. This is another matter deserving of attention and likely to receive it in the near future.

Missing Objectives

A correspondent, speaking of a fellow engineer who is keen and energetic, says that he "has become so absorbed in his own particular approach that he misses entirely the big objective."

This statement, which is doubtless true in this particular instance, applies, we surmise, to more engineers than would care to admit it. Perhaps it applies to mankind as a whole. We get so everlastingly interested in what we are doing today that we lose perspective and when tomorrow comes we are not ready.

Many of the business and engineering successes that are being scored today—and they are not so few as some may think—are the result of advanced thinking on somebody's part. Somebody, taking a larger view, was convinced that a new and different kind of product would gain public acceptance and dared to produce it, defying conventions, with the result that it sold in phenominal fashion. Others, of course, have missed the mark.

Our guess is that a new, advanced and really different automobile, well engineered, easy to look at and made comfortable, roomy and economical to operate, but certainly now larger in overall dimensions than conventional, small-size cars, would find a ready market. Perhaps no present car manufacturer could afford to make it his big production model, but several could produce it, initially at least, as a side line without excessive risk, unless we are greatly mistaken. Sooner or later somebody will see the big objective and leave no stone unturned until it is realized.

SCHWANK APPOINTED BY R. M. HOLLINGSHEAD CO.

Camden, N. J., March 23.—The R. M. Hollingshead Company announces the appointment of Carl W. Schwank as general sales manager, succeeding C. R. Sherman, vice-president and general sales manager, resigned.

Re-Refined Oil

We have had very limited experience with so-called "re-refined" oils which have been reclaimed by the various processes in general use at the present time. In view of this I should not wish to make this reply to your letter of March 16 too positive.

It seems that so far as the performance in the engine is concerned, they are equally as good as the new oils from which they originated. Of course, it could not be expected that a low grade oil could be used for a few hundred miles in an engine and when re-refined, made equal to a high grade lubricant. In other words, it can be expected that a good job of re-refining will bring the oil back to practically its original quality, although some compensation may have to be made with regard to the viscosity change.

The principal consideration with regard to reclaiming oil, I think, has to do with the economics of getting the entire job of handling and re-refining done at an attractive cost as compared with the present low prices of new oil.

T. C. SMITH,
Engineer Motor Vehicle and Construction Apparatus, American Telephone and Telegraph Co.

I have the following comment to make concerning the item "Reclaimed Oil," appearing on Page 7 of the Automotive Daily News of March 16.

It is stated that I asked a "highly impertinent question," etc. The question was not meant to be impertinent and I do not consider it so in view of Mr. Graves' paper, which preceded that of Mr. Clayden's and was entitled "Oil Consumption in Motor Car Engines." The question was very pertinent to this paper. The only inference I could draw from Mr. Clayden's remarks is that the oil companies do not want to discuss this question because it affects their business. However, your paper expresses my sentiments with these words, "Nothing is gained by dodging the issue."

When I asked the question, I prefaced the same by stating my experience with used crankcase oil, and I did not know the subject had been gone into at such length by Messrs. Parish and Cammen in an article entitled "The Chemical Mechanism of Lubrication." Since then, I have read the article just referred to and it checks up and bears out my statements, and in view of the facts therein given it seems curious to me that a more practical development has not taken place on reclaiming oil.

I should say you would be doing the people at large a great service if your news sheet will keep this subject alive and before the public. I suggest that you contact with the various airplane operating companies, calling their attention to the article I have mentioned and ask what their experience has been along this line. The publication of this information should be of great interest.

A. D. T. LIBBY,
Electrical Engineer, Newark, N. J.

McCORD DIVERSIFIES

Detroit, March 23.—McCord Radiator and Manufacturing Company has added considerable new equipment in its plant here, is employing about 800 men and operating at about 35 per cent. of capacity. To its automotive line it has added recently a new line of flexible ice trays for use in electrical refrigerators. These are made from stainless steel sheet and are said to be formed rather than drawn.

DESIGNING FOR 300 M.P.H. SPEEDS

(Continued from Page 7)

always has to encounter a certain amount of side wind, under which condition the theory of the tail fin immediately comes unstuck. Actually, I am doubtful whether this fin does any good at all, and in my view the most important consideration is that it should not be large enough to do any harm. If a fin were essential at 250 m.p.h., it seems to me that it would be at least desirable at 150 m.p.h., and many cars without fins have been made and driven which show no signs of instability at the latter speed.

One interesting little point which hardly concerns the ordinary car, but which had to be carefully considered in the case of Blue Bird, arises in connection with the enormous torque of the Rolls-Rooyce engine. With the normal transmission layout, to which we were already committed in Blue Bird, the torque-reaction is all the time tending to make the car heel over sideways and is resisted only by the road springs. This heeling-over is harmless in itself, but may be rather disconcerting to the driver if the throttle is opened or closed suddenly.

On Blue Bird the springs are so set that when the engine is not pulling the car is heeling over slightly in the opposite direction, so that when the power is applied the car is more nearly on an even keel. In addition to this, the road springs are sufficiently strong and the shock absorbers sufficiently powerful to make this torque reaction nearly unnoticeable to the driver.

Up till recently the space available at Daytona Beach has been sufficient to enable a car to cover the measured mile and to pull up fairly comfortably without any very violent application of the brakes

Speeds are now so high, however, that the ordinary type of brake, as fitted to Blue Bird, is only just capable of stopping the car before it reaches the end of the Daytona track. There is no difficulty in designing brakes that will do what is required. The problem is to find means of cooling them without putting up the air-resistance of the car and so spoiling its performance.

This particular difficulty is only just beginning to make itself felt, and it is to be hoped that before long some place will be found with at least fifteen miles of perfect surface, so that future record attempts may not be hampered by the need for elaborate braking systems and their possibly attendant risks.

The fuel used in the Rolls-Royce engine is rather different from the ordinary gasoline of commerce, but is much the same as that frequently used in racing cars.

It is sometimes thought that the mere use of these special fuels enables any engine to give more power than with gasoline. This is quite wrong, and most unfair to the ordinary commercial fuel, which is for all ordinary purposes the better and more economical fuel of the two. It would be more nearly correct to say that special fuels enable a specially powerful engine to develop its power without getting excessively hot inside and so damaging itself, and that this advantage must necessarily be gained at the expense of economy.

The fuel tanks on Blue Bird hold twenty-eight gallons. It is estimated that the amount of fuel used in warming up and in one run up and down the course will not exceed twenty gallons. Some idea of the rate at which fuel is pumped to the engine may be gained from the size of the gasoline pipe, which is one inch in diameter.

A good many people have expressed surprise at the use of an ordinary cartype honeycomb radiator on Blue Bird, suggesting that the "surface" type offers less wind resistance, and quoting Schneider Trophy machines as proof. At first sight this seems very sound, and the reasons why the honeycomb was used may be of interest. To start with, a surface radiator, as its name implies, should form part of the external surface of the car, and as the total area on Blue Bird which could be used in this way is well under half the total area that would be required, additional radiating surface would be needed in any case. Secondly, it is impossible, in any case, to get anything approaching a perfectly streamlined "nose" for the car, because of the "interference" of the ground and the front wheels. Therefore, the addition of a suitably shaped honeycomb radiator increases the already high head resistance only slightly.

There are, of course, several ways of cooling the engine for a short period without any external surfaces at all, but the amount of experimental work required weighed against their adoption on Blue Bird.

The last sentence furnishes the death warrant of 95 per cent. of the brain waves that one would like to try out on cars like Blue Bird. When it is borne in mind that the driver may have to wait for days or weeks until the beach is in a suitable condition for even a trial run, and that he may want to go for the record half an hour afterward in case the beach is never right again, the need for eliminating any experimental element becomes obvious.

When once one is reasonably confident that the car is sufficiently fast to beat the record, any further alteration is frowned upon, even if it is likely to give another 20 m. p. h., so long as it contains an experimental element which might require three or four trial runs to perfect.

Of course, there are bound to be many experimental features before one can be reasonably sure that the car will do the speed, but they are kept as far as possible in the "definitely right or wrong" category. Anything which by its nature is likely to need much trial and adjustment is avoided like the plague.

Brewers Look to Industry To Supply Trucking Needs

(Continued from Page 1)

both for the brewer and for the brewers' supplies.

In the question of design of truck bodies and chassis the United States Brewers' Association feels that this is strictly a problem for the truck and body designers. They point out that the brewers' problem consists of designing and manufacturing 3.2 per cent. beer, which can be profitably marketed at a price which will make for volume sales. In the marketing, of course, must be considered cost of transportation. At the present time brewers are going ahead on the basis of marketing beer both in bottles and the kegs and probably later in bulk tank trucks. They feel that the automotive industry is in a better position to present designs to the brewer than the brewer is to present designs to the truck manufacturer.

The varying state methods of control, the location of the brewery itself and the physical design of the brewing plant so far as loading facilities and so forth are concerned, coupled with the fact that beer consumers will determine largely whether the greater bulk of the business will be bottle or draft beer will in the long run determine the type of transportation equipment best suited to each individual brewer. The brewers feel that the automotive industry can help most by presenting their own ideas of beer transportation units in such way that the brewer can select the type best suited to his needs.

Looking into the beer truck market on the basis of past needs it is interesting to note that at the present time there are less than 200 breweries actively engaged in the production of cereal beverages. This number of breweries was almost matched in a single large state before prohibition. Beer production in the United States during the five years, 1915 to 1919, inclusive, and in 1919, the production had been practically halved, averaged 51,447,615 barrels a year. In 1932 the production of cereal beverages totaled only 2,765,858 barrels. This leaves 48,681,757 barrels more of beer to be transported if the sales and production should develop within the next year to the proportions reached in the 1915-1919 period. And that's a good sized truck load.

Six Truck Sales Leaders for Jan., '33-Dec., '32

Returns for today: California.

In this table, 41 states and the District of Columbia.

JANUARY, 1933 State	Sales	FIRST		SECOND		THIRD		FOURTH		FIFTH		SIXTH	
Alabama	159	Chev	99	Ford	39	Int	12	GMC	3	Indiana	2	*	1
Arizona	37	Chev	17	Ford	14	D-In	3						
California	728	Ford	274	Chev	214	White	38	Dodge	35	Int	28	GMC	25
Colorado	178	Chev	84	Ford	47	GMC	16	Int	14	Dodge	6	Stude	6
Connecticut	124	Chev	66	Ford	25	Int	9	D-R	5	GMC	4	Stude	3
Delaware	49	Chev	29	Ford	15	I-In	2	Reo	1				
Florida	318	Ford	149	Chev	96	Int	28	Austin	26	Indiana	5	Reo	4
Georgia	121	Chev	66	Ford	39	Int	9	GMC	4	*	1		
Idaho	39	Chev	20	Ford	15	Int	3	GMC	1				
Illinois	852	Chev	242	Ford	199	Int	105	DT	70	GMC	54	Dodge	36
Indiana	405	Chev	147	Ford	141	Int	58	Stude	14	Dodge	12	GMC	9
Kansas	85	C-F	37	Int	4	M-S	2	D-G	1				
Kentucky	289	Chev	134	Ford	81	Int	43	G-S	7	Au-DT	4	D-R	2
Maine	120	Chev	62	Ford	40	Int	8	D-R	3	White	2	DT-G	1
Maryland	166	Chev	69	Ford	40	Int	13	GMC	7	Dodge	5	Autocar	4
Michigan	401	Chev	176	Ford	135	Int	34	Federal	16	D-S	8	G-R	7
Minnesota	291	Chev	147	Ford	33	Int	20	Dodge	11	DT	8	Stude	4
Mississippi	99	Chev	58	Ford	34	Int	4	Austin	2	Stude	1		
Missouri	206	Chev	92	Ford	76	Int	19	Dodge	5	GMC	4	Indiana	3
Nebraska	88	Chev	42	Ford	28	Int	7	DT-D	3	G-S	2		
Nevada	26	Chev	10	Ford	9	D-In	2	G-M-R	1				
New Hampshire	37	Chev	17	Ford	10	DT-In	3	*	1				
New Jersey	358	Chev	137	Ford	101	Int	29	Dodge	17	Mack	13	DT	11
New Mexico	73	Chev	38	Ford	28	Int	5	D-S	1				
New York	974	Ford	303	Chev	269	Int	78	White	68	GMC	47	Dodge	41
North Carolina	402	Chev	194	Ford	138	Dodge	18	Int	17	GMC	9	Au-DT	6
North Dakota	30	Chev	16	Ford	8	Int	4	D-G	1				
Ohio	507	Chev	190	Ford	186	Int	56	Dodge	14	DT	12	G-R-W	6
Oklahoma	234	Chev	134	Ford	56	Int	22	Dodge	8	GMC	6	Indiana	3
Oregon	40	Chev	18	Ford	17	G-I	2	Reo	1				
Pennsylvania	842	Chev	344	Ford	259	Int	80	Dodge	37	White	20	GMC	19
South Carolina	113	Chev	69	Ford	26	Int	6	Austin	4	GMC	3	Dodge	2
South Dakota	38	Chev	15	Ford	14	Int	5	*	1				
Tennessee	193	Chev	101	Ford	54	Int	14	Dodge	4	Fe-S-W	3	G-I	2
Texas	923	Chev	512	Ford	280	Int	67	GMC	19	Dodge	17	DT	6
Utah	60	Chev	35	Ford	14	Int	5	GMC	3	Dodge	2	Reo	1
Virginia	256	Chev	137	Ford	84	Int	9	D-G	8	White	4	Reo	3
Washington	176	Ford	71	Chev	54	Int	15	Dodge	6	G-R-S	4	Indiana	3
West Virginia	153	Chev	75	Ford	56	Int	13	GMC	3	D-I	2	Stude	1
Wisconsin	236	Ford	91	Chev	73	Int	18	DT	15	Dodge	10	GMC	8
Wyoming	44	Chev	21	Ford	11	D-In	5	G-S	1				
Dist. of Columbia	82	Ford	38	Chev	22	Int	8	White	7	D-G	2	*	1
DECEMBER, 1932 State	**Sales**	**FIRST**		**SECOND**		**THIRD**		**FOURTH**		**FIFTH**		**SIXTH**	
Alabama	106	Chev	48	Ford	35	Int	8	Dodge	3	R-I	2	*	1
Arizona	37	Ford	28	Chev	7	GMC	2						
California	455	Ford	236	Chev	86	Dodge	25	Stude	20	Int	18	GMC	12
Colorado	51	C-F	18	Int	5	Dodge	3	S-WO	2	G-R-W	1		
Connecticut	168	Ford	50	Chev	47	GMC	14	Int	13	Dodge	12	Reo	8
Delaware	35	Ford	15	Chev	10	GMC	7	In-M-St	1				
Florida	313	Ford	170	Chev	71	Int	23	DT-FE-R	5	Dodge	4	GMC	3
Georgia	82	Ford	34	Chev	31	Int	9	D-G	2	DT-I-WO	1		
Idaho	16	Ford	10	Int	3	Chev	2	Reo	1				
Illinois	480	Chev	215	Ford	214	Int	16	DT	15	Dodge	11	Fe-I	2
Indiana	156	Ford	68	Chev	36	Int	22	GMC	9	Indiana	5	Stude	4
Kansas	62	Ford	18	Chev	16	Int	10	GMC	5	WO	4	DT-D-M	2
Kentucky	222	Ford	87	Chev	65	Int	22	GMC	14	Dodge	10	DT	9
Maine	58	Ford	26	Chev	24	D-In	2	*	1				
Maryland	138	Ford	51	Chev	35	In-W	11	B-G	6	Dodge	5	Autocar	4
Michigan	509	Ford	222	Chev	173	Int	40	Dodge	24	GMC	12	Federal	7
Minnesota	145	Ford	64	Chev	46	Int	11	DT	6	D-G	4	Reo	3
Mississippi	73	Ford	43	Chev	17	Int	12	Dodge	1				
Missouri	317	Chev	134	Ford	106	Int	22	Dodge	19	GMC	15	DT	6
Nebraska	43	Ford	20	Chev	14	Int	5	Dodge	2	DT-WO	1		
Nevada	9	Ford	5	Int	2	C-M	1						
New Hampshire	26	Ford	19	C-DT	2	Int	1						
New Jersey	412	Ford	189	Chev	97	Dodge	24	Int	23	GMC	19	Indiana	10
New Mexico	66	Ford	38	Chev	21	I-In	2	Dodge	1				
New York	765	Ford	304	Chev	156	Int	51	Dodge	42	White	38	DT	25
North Carolina	224	Ford	111	Chev	80	Int	10	Dodge	8	GMC	5	DT	2
North Dakota	7	Ford	3	*	1								
Ohio	752	Ford	317	Chev	189	Int	53	GMC	48	Dodge	42	WO	27
Oklahoma	120	Ford	54	Chev	41	Int	11	Dodge	6	GMC	5	M-S	1
Oregon	50	Ford	30	Chev	11	GMC	6	Int	2	Indiana	1		
Pennsylvania	1340	Ford	545	Chev	303	Int	125	Dodge	94	GMC	66	Reo	26
South Carolina	75	Ford	39	Chev	18	Dodge	5	Int	3	Stude	2	G-M-W	1
South Dakota	29	Ford	16	Chev	7	Int	4	Dodge	1				
Tennessee	122	Chev	50	Ford	46	Int	12	Dodge	4	Federal	3	G-S-W	2
Texas	443	Ford	227	Chev	156	Int	39	GMC	8	Dodge	5	White	3
Utah	13	Chev	6	F-In-R	2	WO	1						
Virginia	201	Ford	112	Chev	54	D-In	9	DT	6	GMC	5	B-R	2
Washington	331	Ford	111	Int	59	Chev	37	GMC	5	D-S	3	M-R	2
West Virginia	128	Ford	58	Chev	38	D-In	9	Indiana	5	GMC	4	*	1
Wisconsin	159	Ford	61	Chev	43	Int	17	Dodge	8	DT-G	6	Reo	5
Wyoming	20	Ford	10	Chev	5	Int	3	Reo	2				
Dist. of Columbia	84	Ford	24	GMC	9	Chev	7	Dodge	4	Federal	3	DT	1

KEY TO ABBREVIATIONS AND SYMBOLS

Au—Austin; A—Autocar; B—Brockway; C—Chrysler; D—Dodge; DT—Diamond T; F—Ford; Fe—Federal; G—GMC; I—Indiana; In—International; LFB—La France-Republic; M—Mack; R—Reo; S—Studebaker; St—Stewart; W—White; WO—Willys-Overland. *All trucks in this position registered only one.